

U.S. Patent Application Serial No. 10/721,069
Amendment filed May 1, 2006
Reply to OA dated September 7, 2005

REMARKS

Claims 1-3, 5 and 6 are pending in this application. Claims 1 and 5 are amended herein. Upon entry of this amendment, claims 1-3, 5 and 6 will be pending.

Minor amendments are also made to the specification. Support for the amendments to the specification is discussed below.

No new matter has been introduced by this Amendment. Support for the amendments to the claims is as follows:

Support for the amendment to claim 1, of “charge amount measured by aspirating and collecting the toner with an aspirating charge amount analyzer.” may be found, for example, in paragraph [0044], on page 17, lines 10-13, of the specification.

In the amendment to the last line of claim 1, of “[3-] 10-500 particles ...”, the lower limit of “3” is amended to -- 10 --. Support for this amendment may be found, for example, in paragraph [0035] of the specification.

In the amendment to claim 5, “3 [[-70]] 9.1 number percent”, the upper limit value is reduced from “70” to -- 9.1 --. Support for this amendment may be found, for example, in Example 1 in Table 1 on page 32 of the specification.

The disclosure is objected to because of the following informalities... (Office action paragraph no. 4)

The Examiner indicates that there are trademarks that have not been capitalized, noting in

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particular “Henschel mixer” in the paragraph beginning on page 30, line 10. Applicant has amended the specification to fully capitalize the occurrences of “HENSCHEL MIXER”.

Claims 1-3, 5, and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. (Office action paragraph no. 7)

The Examiner refers to the amendment to claim 1 to add a limitation on the “volume average primary particle diameter,” made in the Amendment filed June 16, 2005, noting that the specification on page 14, lines 10-14, recites: “having a particle diameter in the range of 0.1 to 3.0 μm .” The rejection is overcome by the present amendment, in which the words “volume average primary” are deleted.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 2001/0033982 A1 (Ishikawa) combined with US 6,897,001 B2 (Mizoe). (Office action paragraph no. 9)

Reconsideration of the rejection is respectfully requested in view of the amendment to claim 1 and the evidence in the Declaration under 37 CFR 1.132 filed with the Response under 37 CFR 1.132 dated March 3, 2006.

In the rejection, the Examiner states (bottom of page 12) that “Instant claim 1 does not require that the recited toner absolute charge be determined by the method used in the examples of the instant specification.” Claim 1 has been amended herein, as noted above, to recite: “the toner

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has an absolute value of charge amount measured by aspirating and collecting the toner with an aspirating charge amount analyzer ...”

Ishikawa et al. discloses a toner comprising at least primary polymer particles and primary colorant particles, and at least one layer of a particulate resin coated on a substantial surface portion of said agglomerate of particles, wherein at least one of said primary polymer particles and said particulate resin further comprises a wax, and wherein an outermost layer of said particulate resin is substantially free of wax (see paragraph [0021]). Ishikawa et al. measures the charge amount of a toner by a blow-off method (see paragraphs [0184] and [0185]). That is, Ishikawa et al. measures the charge amount of a toner by mixing the toner with a carrier, charging the toner by friction, and measuring the charge amount of the toner.

On the other hand, in claim 1 as amended, the charge amount of a toner is defined by measuring it by a aspiration method. This method is well known to be different from the method of Ishikawa et al.

In addition, Applicant has provided evidence in the cited Declaration under 37 CFR 1.132 that the value of the charge amount of a toner measured by the blow-off method is different from that measured by the aspiration method. This demonstrates that the charge amount of a toner of Ishikawa et al. cannot be compared with that of the present invention because of the difference of the measuring method. Applicant therefore submits that there is no suggestion or motivation in Ishikawa et al. for the recitation of claim 1, as amended.

In the present invention, a toner which does not cause fog and has excellent cleaning

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performance can be obtained by controlling the charge amount of the toner within the range defined as amended claim 1.

Mizoe et al. discloses a toner using tin oxide particles containing silica and tungsten as an external additive. In the toner disclosed by Mizoe et al., the average number of the external additive particles on the surface of the toner is 1 to 50 particles per one toner particle. However, the number disclosed in the Example is 5, which is not within the range recited in amended claim 1 (i.e., "10-500"). In the present invention, the properties such as cleaning performance of the toner are improved by controlling the average number of the external additive particles on the surface of a toner in the range defined as amended claim 1.

The present invention provides a toner having excellent properties such as cleaning performance by satisfying the above-mentioned requirements. However, there is no disclosure or suggestion in the cited reference regarding the above-mentioned requirements and that the above-mentioned effects can be brought by satisfying the requirement.

Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 00/58790 (Masuo), as evidenced by applicant's admissions at page 7, line 27, page 9, lines 23-26, and page 10, lines 7-8, of the instant specification (applicant's admissions I), combined with Mizoe. (Office action paragraph no. 10)

Reconsideration of the rejection is respectfully requested in view of the amendment to claim 1 and the evidence in the cited Declaration under 37 CFR 1.132.

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Masuo discloses toners which have a prescribed particle diameter and contain an external additive. However, Masuo does not disclose the charge amount of a toner as recited in claim 1. Likewise, Mizoe does not disclose the charge amount of a toner recited in claim 1. Applicant therefore submits that claims 1-3 and 6, as amended, are not obvious over Masuo and Mizoe, taken separately or in combination.

Claims 1-3 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masuo, as evidenced by applicant's admission at page 7, line 27, of the instant application (applicant's admission II), combined with US 6,096,468 (Ohno) and Mizoe. (Office action paragraph no. 11)

Masuo and Ohno disclose toners which have a prescribed particle diameter and contain an external additive. However, Masuo and Ohno do not disclose the charge amount of a toner as recited in claim 1. Likewise, Mizoe does not disclose the charge amount of a toner recited in claim 1. Applicant therefore submits that claims 1-3 and 6, as amended, are not obvious over Masuo, Ohno and Mizoe, taken separately or in combination.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuo, as evidenced by applicant's admissions I, combined with Mizoe, as applied to claim 1, further combined with US 6,074,794 (Fushimi). (Office action paragraph no. 12)

Reconsideration of the rejection is respectfully requested in view of the amendments to

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claims 1 and 5.

Masuo and Fushimi disclose toners which have a prescribed particle diameter and contain an external additive. However, these references do not disclose the charge amount of a toner as recited in claim 1. Furthermore, Mizoe does not disclose the charge amount of a toner defined in the present invention.

Additionally, Mizoe et al. discloses that the toner contains 5 to 70 number % colored particles with a particle diameter of 4 μm or less. However, the toner actually manufactured in the Example contains such colored particles in ratio of 20 number %. Therefore, Mizoe et al. does not disclose a toner containing a 3 to 9.1 number % colored particles with a particle diameter of 4 μm or less, as in amended claim 5.

Applicant therefore submits that claim 5 is not obvious over Masuo, Fushimi and Mizoe, taken separately or in combination.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Masuo, as evidenced by applicant's admission II, combined with Ohno and Mizoe, as applied to claim 1 above, further combined with Fushimi. (Office action paragraph no. 13)

Reconsideration of the rejection is respectfully requested in view of the amendments to claims 1 and 5.

Masuo, Ohno and Fushimi disclose toners which have a prescribed particle diameter and contain an external additive. However, these references do not disclose the charge amount of a toner

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as recited in claim 1. Furthermore, Mizoe does not disclose the charge amount of a toner defined in the present invention.

Additionally, Mizoe et al. discloses that the toner contains 5 to 70 number % colored particles with a particle diameter of 4 μm or less. However, the toner actually manufactured in the Example contains such colored particles in ratio of 20 number %. Therefore, Mizoe et al. does not disclose a toner containing a 3 to 9.1 number % colored particles with a particle diameter of 4 μm or less, as in amended claim 5.

Applicant therefore submits that claim 5 is not obvious over Masuo, Ohno, Fushimi and Mizoe, taken separately or in combination.

In view of the aforementioned amendments and accompanying remarks, the claims, as amended, are in condition for allowance, which action, at an early date, is requested.

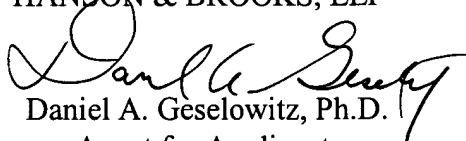
If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact the Applicant's undersigned agent at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

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In the event that this paper is not timely filed, the applicant respectfully petitions for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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